

## CLAIMS

1. An aircraft air conditioning system for conditioning of the cabin and/or cockpit air, comprising an air re-circulation circuit (13, 14, 15, 16) and a UVC radiation unit (12) positioned so as to irradiate air in the re-circulation circuit (13, 14, 15, 16) with ultra violet light.  
5
2. An air conditioning system as claimed in claim 1 comprising a re-circulation (14) fan having the inlet thereof connected to a mechanical filter (33), and the output connected to a mixer unit (13) adapted to mix re-circulated air supplied to the mixer unit (13) by the fan (14), the UVC  
10 radiation unit (12) being positioned so as to irradiate the re-circulated air with ultra violet light at a wavelength of 253.7 nm.
3. An air conditioning system as claimed in claim 2 in which the irradiation unit (12) is located in a plenum chamber (40) which feeds the re-circulated air to the mechanical filters (33).
- 15 4. An air conditioning system as claimed in claim 3 in which the plenum chamber (40) is a chamber which receives re-circulated air from various air outlets from the cabin and/or cockpit.
5. An air conditioning system as claimed in claim 4 in which the air re-circulation fan (14), mechanical filters (33) and mixer unit (13) are  
20 located in the fuselage below the passenger cabin and substantially in line with the roots of the aircraft wings.
- 25 6. An air conditioning system as claimed in claim 4 or claim 5 in which the UVC emitters (41) are located in a plenum chamber (40) to which the mechanical filters (33) are exposed for ingesting re-circulated air from the plenum chamber (40).

10

7. An aircraft fitted with an air conditioning system as claimed in any one of the preceding claims.

8. A kit of parts for providing an aircraft with an air conditioning system as claimed in any one of claims 1 to 6.

5